

Raglan WWTP Discharge Consent Application Project

Community and Key stakeholder Meeting April 2021 (delayed until 6 May)

Welcome – CLLR Bech

PART A (15 min):

- (i) Solar Array Progression
- (ii) NEXGEN REPORT – Themes and next steps

PART B (15 Min):

- (iii) Application refinement
- (vi) Way forward? Discussion

Wrap up/Queries – CLLR Bech

PART A:

Solar Array update



Project: Installation of a 220kW grid-tied solar array on ~2,600m² of land of Raglan WWTP;

Status: WGB Paper, Procurement underway

Delivery: 2021:



PART B:

Subsurface Drip Irrigation (SDI) Update: NEXGEN WATER LTD RECEIVED/DISTRIBUTED

RAGLAN WASTEWATER SDI DISPOSAL OPTIONS PRE-FEASIBILITY REPORT



May 2021

Prepared by NexGen Water Limited

For WaterCare Waikato



Key Concepts:

- Feasibility study of Public Land
- Modelling HYDRUS2D
- Introduction of innovative methods to manage winter flow in sand soils
- Nutrient and hydraulic overloading concepts covered



Updates on Public Land Availability (June)

Raglan Golf course

MAY 2021 Monthly Meeting UPDATE

- *Tight clay soils exist in the area,*
- *an enthusiastic partner (club) is a significant advantage.*
- *NZ golf course irrigation examples to benchmark off*
- *Demonstrates a significant re-use initiative*

JUNE 2021 Monthly Meeting UPDATE

Next Steps; Approach Club to allow for further study (Working in Good faith)

The Wainui Reserve

MAY 2021 KSH UPDATE

- *A WDC Reserve Management Plan process is underway*
- *23ha of theoretical farm-land (that avoids other activities);*
- *Clay nature of soils is understood;*
- ***Access is not presumed – Important decisions and challenges accompany any such discharge scenario***

JUNE 2021 Monthly Meeting UPDATE

Complex legalities exist – information gathering can continue

Air strip

MAY KSH UPDATE

- *Very complex history*
- *the sandy nature makes it very appealing for a discharge/earth-contact perspective*
- ***Theoretical utilisation only at this point - In reality this may not be appropriate***

JUNE 2021 Monthly Meeting UPDATE

Complex legalities exist – Advice from both hapu advisors is for alternative investigation areas for winter flow be considered

PART B Discussion: Methods to narrowing down toward a workable treatment and discharge option for wider community consultation

Option	MCA (score approx)	Hapū (feedback)	Community Board Feedback (some KSH)	Financial (LTP \$M)
M1	55			17
M2	50			30
F1	30			30
L2	72	Business case needed by hapū prior to position-forming. <i>What is an achievable not-point source option (i.e. allowing customary kaimoana collection that has been prohibited for decades?)</i> Existing outlet could be o.k for interim time when working toward alternative discharge for winter flow	Community Board have highlighted that positioning will be in-step with hapū	58
L1	61			25
L3	65			43
L4	58			42

sweet spot?

Option	Treatment	Discharge
Option M1	Existing treatment process + tertiary membrane	New harbour outfall
Option M2	Membrane Bioreactor (MBR) and UV disinfection	New harbour outfall
Option F1	MBR and UV disinfection	Freshwater diffuse discharge
Option L2	Existing treatment process + tertiary membrane	Private land discharge and storage
Option L1	Existing treatment process + tertiary membrane	Combined public land discharge (irrigation) and alternative discharge for winter flow
Option L3	Existing treatment process + tertiary membrane	Combined private land discharge and alternative discharge for winter flow
Option L4	MBR and UV disinfection	Combined public land discharge and alternative discharge for winter flow

Nutrient re-use



Winter Hydraulic Properties



Discharge would sit with:

Obtaining access to both typical Raglan soil (clay) and sandy-soil to allow affordable SDI in a staged manner.

This would be a mix of public land for existing flow (Stage 1 -24ha), and private land purchase for future flow (stage 2 additional 18ha).

Hybrid L1/L2 land irrigation option for present and future flow: Reliant on establishing a high-rate SDI for winter flow (potential alternative to point source outlet to Whāingaroa)

Treatment determination would occur once available SDI areas for stage 1 are defined.

It could be either:

Tertiary membrane/filter if sufficient ha of Raglan soil (clay) is available to take nutrient load (maximizes re-use potential) with winter flow reliant on high-rate SDI to sandy-soil

or

Greater treatment to lower nutrient level if:

- required ha of Raglan soil (clay) is not available, where;
- greater reliance then on high-rate SDI to sandy-soil is then needed.



- **PART D** Wrap up/Queries – Cr Bech /Ian C